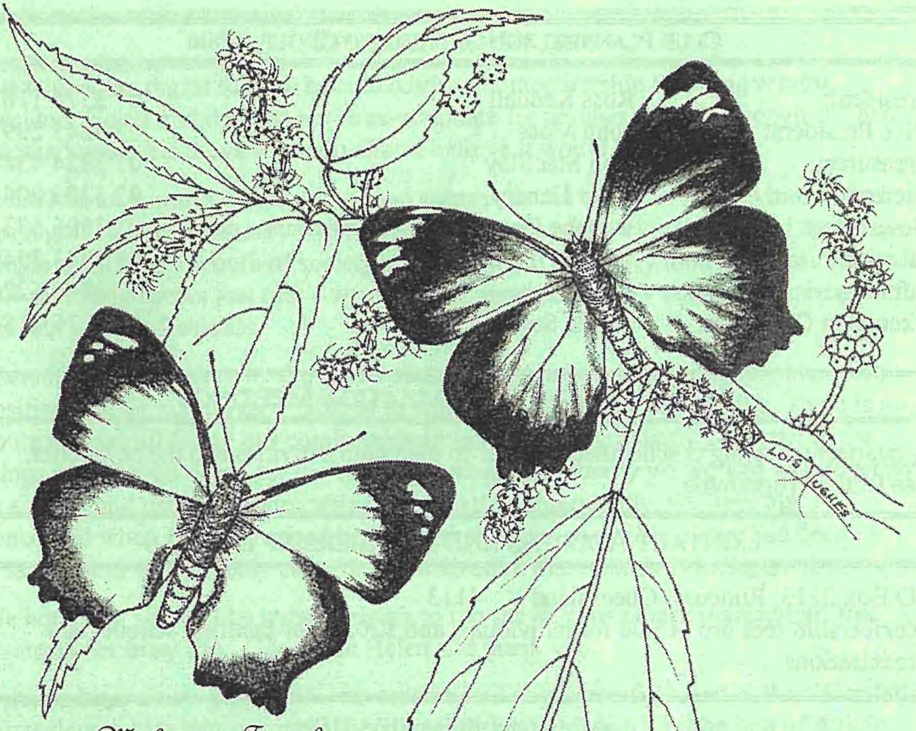

Male and Female
White or Jezebel Nymph
(*Mynes geoffroyi*) on
Pipturus argenteus

Butterfly & Other Invertebrates Club Inc. Newsletter

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http://www.connectqld.org.au/boic

CLUB PLANNING AND ORGANIZING GROUP - 2006

President:	Ross Kendall	07 3378 1187
Vice President:	John Moss	07 3245 2997
Treasurer:	Rob MacSloy	07 3824 4348
Secretary:	Peter Hendry	07 3206 0048
Newsletter:	Daphne Bowden (bowden@itconnect.net.au)	07 3396 6334
Librarian:	Janet Willoughby	07 3343 3949
Publicity:	Lois Hughes	07 3206 6229
Excursion Convenor:	Alisha Steward	07 3275 1186

PLANNING AND ORGANIZATION MEETINGS

A quarterly meeting is scheduled in order to plan club activities and the newsletter. See BOIC Programme.

CONTACT ADDRESS AND MEMBERSHIP DETAILS

PO Box 2113, Runcorn, Queensland 4113

Membership fees are $15.00 for individuals and $20.00 for families, schools and organisations

AIMS OF ORGANIZATION

- To establish a network of people growing butterfly host plants;
- To hold information meetings about invertebrates;
- To organize excursions around the theme of invertebrates e.g. butterflies, native bees, ants, dragonflies, beetles, freshwater habitats, and others;
- To promote the conservation of the invertebrate habitat;
- To promote the keeping of invertebrates as alternative pets;
- To promote research into invertebrates;
- To encourage the construction of invertebrate friendly habitats in urban areas.

NEWSLETTER DEADLINES

If you want to submit an item for publication the following deadlines apply:

March issue – February 21st

June issue – May 21st

September issue – August 21st

December issue – November 21st

COVER DRAWING

White or Jezebel Nymph (*Mynes geoffroyi*) on *Pipturus argenteus* by Lois Hughes

PRESIDENT'S POSTING

It is with some regret that we have to advise our membership that long serving president Helen had decided not to re-nominate for another term. Although she had foreshadowed this move we really didn't believe it would happen.

Helen had an enormous enthusiasm and energy for the club and its activities. She led it and guided it and virtually lived it. Her vision was for a club that would appeal to people at all levels – both of society and expertise. A cursory look at a cross section of club members shows just that – we do indeed have some very talented members, both amateur and professional.

Many have asked just why the club's committee members have generally kept their positions for so many years, most of us since the beginnings in 1994/95. There is no doubt that we all found our comfortable little niche and gradually got better at the things we enjoyed doing for the club. But more importantly we worked well together as a team, and usually an amicable one at that! Consequently, we were quite concerned when Helen dropped her bombshell – our cosy little clique had been breached and we suddenly came to the realization that nobody is indispensable.

We hope that she will be happy helping to run the various other organizations that underpin her busy life. Good luck Helen and thank you.

We now have a new president – ex- teacher and now butterfly breeder, Ross Kendall. We welcome him into our inner sanctum and sincerely wish him the best of Aussie luck!

John Moss – Vice President

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PRESIDENT'S REPORT

President's Report for 2005, presented in part to the AGM held Saturday 8th April, 2006, at Downfall Creek Bushland Centre, McDowall.

It is with sadness that I leave the post of President after establishing the Club eleven years ago and serving it since. However I now find that my interests are developing more strongly in the field of invertebrate conservation and ecology rather than butterfly gardening.

During my time as President the Club has grown from a membership of about thirty to two hundred and five members. We have produced 40 newsletters that have made a significant contribution to the understanding of butterflies and their host plants and progressively we have started paying more attention to other invertebrates, more so particularly in recent years. In this time the Club has made a significant contribution to community education about these issues, though, judging by recent presentations, there is still a "long row to hoe".

Efforts such as these have not been possible without the strong support of the Management and Planning Committees over time. Firstly I'd like to thank Frank Jordan as the co-founder of the Club. Frank has played many roles including as Secretary and Honorary Project Officer. Frank's role has involved writing many newsletter articles and soliciting them from others; doing lots of research and observational work; developing a butterfly garden and working on re-vegetation sites; locating and propagating host plants not easily available elsewhere; supporting practically every excursion ever held; giving very many talks to other community groups, sometimes on a monthly basis; holding stalls and information session, such as Brisbane City Council Green Days. Frank also provided me with lots of support during these years in my role as President.

Rob MacSloy deserves special mention for having been involved from the very first meeting in October 1994, where he became, and has since remained, the Treasurer. Rob has kept the Club's finances in good shape and played an essential role in a number of other management tasks such as doing mail orders; maintaining membership records; organizing correspondence; completing financial and other required paperwork; producing an index to the newsletter; and undertaking a part of the role of Secretary during this time. Rob's contribution has been vital to the success of the Club.

Particularly thanks goes to Daphne Bowden who has done much of the legwork for the Club by, amongst other things, producing a range of booklets; compiling, editing and distributing the newsletter; helping establish, updating and responding to queries raised via the Club's website; producing a membership directory; hosting many a Club meeting and providing delicious food; propagating Birdwing vines and other host-plants; and along with others running various stalls.

Even with the list of Daphne's contributions, I'm sure I've left out some. This is also likely to be the case with many other long-standing Committee member's contributions. I hope I will be forgiven any oversights as they are unintentional.

John Moss has also been a long-term Management and Planning Committee member, becoming Vice-President after the first year. John's role in providing articles and scientific referencing for the Club's newsletter has been invaluable, as has been his knowledge base as a talented Naturalist. One of his significant contributions has been re-developing and expanding an initial list of butterfly caterpillar food plants of approximately 4 A5 pages, produced by Frank and myself in 1993, to the now second edition 52 page Hostplant booklet comprising of which 34 pages are hostplant information. On many occasions John has also supported the Club's excursions and willingly and generously shared his knowledge with other participants.

Lois Hughes has also been a long-term Planning Committee member, playing an important role in the illustrating of and at times writing for the newsletter. Lois's skill as an artist has also provided the Club with the background painting of the Lifecycles of the Swallowtail poster. Lois's role as Publicity Officer, and working with Daphne on the newsletter in general, has also been very helpful. Lois has also made various host plants accessible to the Club's membership and the general public. Lois has also supported stalls and information stands when able.

Peter Hendry has been a very helpful member of the Club since becoming involved and undertaking the role of Secretary three years ago. Peter's knowledge and ability with propagating native plants has helped a number of members obtain otherwise difficult plants. Peter's contribution to the Host plant list, making an index of butterflies and their food sources available has been most useful.

Over the last two years the Club's Planning Committee has seen the addition of some new blood and with it some fresh ideas. Janet Willoughby has been helpful in supporting the club through letting lots of other groups know about us and supporting information stalls at times. Jon Marshall and Alisha Steward have supported the Club through organizing excursions. Alisha and Janet, along with Daphne have been working with me in further developing a project called "Bug-Eyed". This is a sponsorship program for schools initially developed by a friend of Alisha's, Amanda Grimmett. Amanda's vision for this project is an inspiration.

Past Committee members whom I'd like to thank for their various efforts include Georgina John, Terri Wolf, Rosalind Popple, Jean Hope and Kay McMahon.

There are also many others who have helped the Club along the way. In particular, another stalwart supporter has been Bob Miller who had played an essential role in the growth of the Club. In his quiet way Bob had accumulated a lot of information about butterflies and their food plants which he generously shared with all Club members. Along with others, Bob has written many articles in preceding years and has led excursions. One particularly useful contribution he was providing the butterflies for a portable display. Thanks goes to Graham Forbes for building the cases for this display.

I'm sorry that I am unable to name everyone, however, many will have been acknowledged in past President's reports. Club's like ours can't flourish without the collective contributions of many people. On a sad note I need to mention the passing of Lorna Johnston, a long time member and butterfly gardener for many years prior to the formation of the Club.

Thanks also goes to one of our long-standing members, Bob James. Bob took on the complicated and time consuming task of compiling a CD of all past newsletters and linking them to an index. This CD has the added bonus of containing colour images in some of the newsletter issues.

Over the years I have played many roles in the Club. Apart from a role as an active President, initially in the Club's establishment, I have frequently (until recent years) also acted as the Minutes Secretary. I have remained aware of and attended to many of the organizations management and accountability responsibilities. I have obtained a number of grants for the Club including the funds to produce the Lifecycles of the Swallowtails poster, for which I provided all the photos, except for the Richmond Birdwing, and which I compiled and produced. For many of the recent years I have taken the lead role in compiling the quarterly calendar of events, attended nearly every excursion, and written up many of these and other articles for the newsletter. I have also contributed to many stalls and information stands.

Over the last three years, Frank and I have been actively involved with the Woodford Folk Festival in a number of ways. These include monthly revegetation working bees to enhance the site for butterflies, holding a six day information stall at the festival promoting the Club and the revegetation work, running Butterfly Wanders during the festival showing attendees various host plants, and this last festival showing the insects that can be attracted by night. For the last two years we have also been actively involved in the annual Tree Planting Weekend, planting host plants and running a 2 day information stall. Due to the efforts of several predecessors and our own contribution, Richmond Birdwings are now breeding onsite. These activities have reached a wide audience of people the Club might otherwise not so easily reach.

I leave the Presidency and the Committee having recently taken on the task of re-developing the Constitution. This will place the organization in good stead for the forthcoming 10 years of so.

Over the last 4 issues of our newsletter (up to issue 40, March 2006), 51 items have appeared contributed by 17 different people. Thanks goes to Daphne for compiling the newsletters, Lois and others for illustrations and photos. An increasing number of photos are now being included.

Also thanks goes to our main article contributors, John Moss, Peter Hendry and John Klumpp. Further thanks go to the people who help with regular and occasional contributions throughout the year and helped provide a wider diversity of ideas, information and observations. These people are: Lois Hughes, John Stumm and Frank Jordan. Other contributors have included Graham McDonald, Jon Marshall and Alisha Steward, Sheryl Keates, Robert Ellis, Don Herbison-Evans and Debbie Raklyeft, Katie Hiller, Geoff Montieth, Martyn Robinson, Murdoch de Baar, and Graham Owen. Also it needs to be noted that I personally contributed the most items to the newsletter over the last year. Thanks goes to John Moss and Martyn Robinson for scientific referencing.

We have continued with a regular monthly program of excursions and activities. These have included:

- Marine Shells and Molluscs, a presentation by Robert Ellis (June)
- Beetles, a presentation by Geoff Montieth (July)
- Freshwater Invertebrates, a presentation by Jon Marshall and Alisha Steward (August)
- Information Display, 2 days, at the Society for Growing Australian Plants (September)
- Local butterfly sites on the Sunshine Coast hinterland and Garden visit at Eudlo led by Andrew Atkins
- Garden visit as a Tribute to Lorna Johnston led by David Johnston (October)
- Stony Creek and Bellthorp excursion led by Jon Marshall and Alisha Steward (November)
- Garden visit to Highvale, focusing on Native Bees, with Bob Luttrell (December)
- Woodford Folk Festival activities as mention elsewhere (December).
- Great Dividing Range excursion led by Frank Jordan and myself (January)
- Maleny: Barung Landcare Nursery and Rainforest Liqueurs / Mary River Excursion, led by Frank Jordan and myself (February)
- Gold Coast Excursion led by Frank Jordan and myself (March)
- Downfall Creek Walk as part of the Annual General Meeting activity (April)

Thanks goes to all these presenters and excursion leaders.

During this time we have continued our quarterly planning meetings that enable us to bring you this newsletter and program of activities. Thanks goes to the event leaders and also to the Redlands Shire Council and Indigiscapes and the Downfall Creek Bushland Centre for making excellent venues available to community groups at a very affordable price.

Thanks goes to other club members involved with butterfly and other invertebrate plantings and other promotion in their local areas or field of activity. In this regard, particular thanks goes to Katie Hiller and other Queensland Museum Inquiry staff who make information about our Club and our publications and posters available to the public. Thanks also to those Club members who promote our club and our endeavours in their own activities.

In closing and saying farewell, I'd like to welcome incoming Club President, Ross Kendall. I wish him and the Club every success for the future.

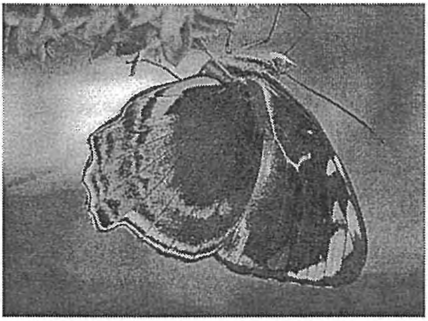
Wishing all Club members health and prosperity into the future.

Helen Schwencke

CREATURE FEATURE

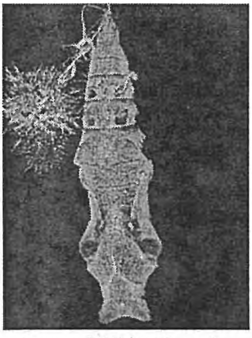
White or Jezebel Nymph (*Mynes geoffroyi*)

A most delightful sight greeted us on the evening of May 5th. The coolite box in which I was rearing White Nymph caterpillars was pulsating with life. Hanging like pegs on a line from the mesh lid were 28 butterflies eager to experience life on the wing.



Adult female *Mynes geoffroyi*

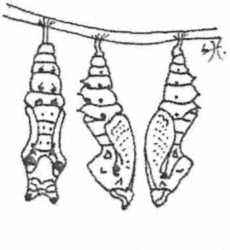
The warmth of the sun comes slowly in our valley, so we waited a while to release them next morning. They slowly responded as we gently awakened them, opening and shutting pristine wings, the purple suffused black, boldly contrasting with the red, yellow and white markings, with scalloped hindwings adding to their attractiveness. There were only two males, easily distinguished by their upperside wings, with large areas of white surrounded by narrow black borders and small white spots in the wider black borders of the outer edges of the forewings. They were slightly smaller than the females at 50 mm. and 57 mm. respectively. The wings of the females are broadly bordered black fading to a blue grey, becoming white closer to the body and having similar white markings in the forewings as the males. Exploratory probosces soon drank hungrily from the only remaining Buddleia flower as we lifted as many butterflies as would fit onto the blossom. Satisfied, most lazily drifted off and were still around late afternoon.



Pupa of White Nymph
with spent larval skin

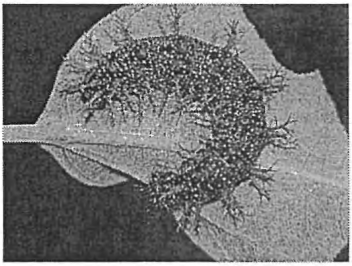
Imagine our surprise when 30 more butterflies emerged that evening, with only one chrysalis failing to do so. Calling Peter Hendry, whose excellent photos enliven our newsletter, I envisaged a repeat performance with plenty of photo opportunities. It wasn't to be. As soon as the lid was lifted they all flew off in different directions. We did find one 'poser', so all wasn't lost and Peter was also able to capture the perfectly camouflaged caterpillars on the *Pipturus* by the creek.

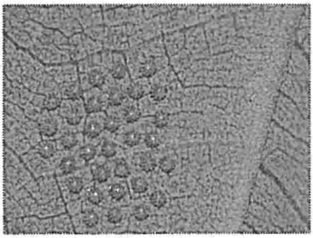
In early April, when we collected these caterpillars from the tree, they were already about 22 mm. long, black, with black branched spines emerging from a pinkish tan base. After ten days they were slightly more than double that length, hanging a few days later (before pupating)on the strings with which I had criss-crossed the box. Long (about 30 mm.) and narrow (about 30 mm.), mottled brown with small black marks and two gold dots, spiky-bodied pupae hung side by side. They emerged fourteen and fifteen days later.


Pupae hanging side by side

When these caterpillars were first collected, the tree had very few ripe fruit or flowers. At present, mid May, the tree is becoming loaded with blossom and ripening fruit. The flowers begin as small green balls with 'pimples', from which emerge whitish curved spines, which turn pinkish tan as the fruit develops, eventually dropping off as the fruit ripens into a dimpled, white, juicy morsel, which the birds find very appetizing. These fruit develop in large numbers on the ends of the branches, which is where I've found all the larger caterpillars, resting by day and feeding by night.

The amazing thing is that the larger caterpillars are no longer black but varying shades of mottled grey between the branched spines, which are now either green or pinkish tan. When bunched together on the branches amongst the flowers, as is their habit, they are almost indistinguishable from the flowers (take a look at the cover drawing and find the larva), their colour and spikiness blending in with the similarly coloured flower spikes amongst which they are cleverly disguised. This is in marked contrast to the earlier instar black larvae which cluster together on the under surface of the leaves. How perfectly their Creator has provided for their survival.


White Nymph late instar larva


White Nymph egg cluster

The yellowish orange eggs that we observed were laid mostly on the upper surface of the leaves in large clusters, turning grey before the caterpillars emerged. One batch we closely watched, did so in fifteen days. I was fascinated as, with tiny shiny black heads, they ate their way out of the top of the shells and slowly made their way beneath the leaf. They were all of 2 mm. long and a mustard colour. After 3 weeks they were 10 mm. long. After the first moult, the head, legs and spines were pinkish tan and remainder of the body black with tiny pale spots, changing to black in a few days.

What a joy it is to know that by planting *Pipturus* trees we are contributing in such a significant way to the butterfly population. Altogether we've released over a hundred butterflies in the last few weeks. We would love to hear from other clubmembers to see how widespread they are.

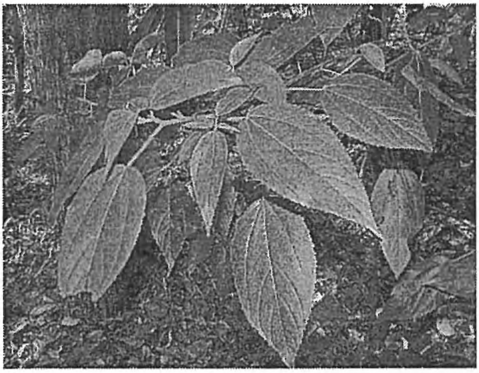
Photos by Peter Hendry **Lois Hughes**

PLANT PROFILE

Pipturus argenteus (Native Mulberry)

(pip-TEW-rus) from the Greek "pipto", to fall; "oura", a tail referring to the leaves which are on long *petioles.

Argenteus, meaning silvery, referring to the silvery underside of the leaves.



Pipturus argenteus –Photo by Peter Hendry

P. argenteus is a member of the Urticaceae family of flowering plants which includes stinging nettles and stinging trees. It is a small tree to 6m. The leaves are elliptical, 7-26cm X 2-6.5cm, mid to deep green above and due to a dense covering of silver white hairs on the underside are silvery below. The leaf margins are finely toothed. The flowers are tiny, white, and form in small clusters. The fruit is mulberry-like with translucent flesh and edible.

A rainforest plant, *P. argenteus* occurs in Australia along the coast from North Queensland to Lismore in northern New South Wales. Overseas it can be found in Polynesia and Malaysia. Propagation is from fresh seed or semi-hardwood cuttings. It prefers a well-mulched site with some shade, but will perform well in full sun. It is not frost hardy and responds to hard pruning.

While *P. argenteus* is a host plant for our creature feature, the Jezebel Nymph (*Mynes geoffroyi guerini)*, it also hosts the Yellow Admiral (*Vanessa itea*), the Speckled Line-blue (*Catopyrops florinda halys*), the Blue-banded Eggfly (*Hypolimnas alimena*) and the Varied Eggfly (*Hypolimnas bolina*). The small white flowers are also a source of nectar for the adult butterflies and as a non-stinging member of the Urticaceae family, *P. argenteus* should be included in any butterfly friendly garden.

*petiole: the stalk of the leaf that joins the leaf blade to the branch.

References: Baines, James A.: Australian Plant Genera
Elliot, W. Rodger and Jones, David L.: Encyclopedia of Australian Plants
Sankowsky, Garry: Garden on the Wing CD ***Peter Hendry***

CREATURE NOTE

Crabby Diners

I saw something interesting the other day. It's very rare that animal behaviour of any kind makes me laugh but this was very funny to watch.

I have set up a 90cm aquarium which has tidal flows twice a day (every 6 hours) ***[NB This is quite easy to do and I can supply an article on this if required but it will only benefit those who study marine invertebrates]*** and it is inhabited by mudskippers. Recently, to add a bit of interest, I put in some terrestrial hermit crabs (*Coenobita variabilis*) which I learned are also mangrove inhabitants rather than just wandering about on sand dunes as they're typically portrayed. These are the commonly seen species usually living miserable lives as poorly catered for pets in many pet shops. There are only two *Coenobita* species native to Australia - the other one being the bright cherry red *C. perlatus*.

Anyway they settled in well and, like the mudskippers, they climb the fake mangrove roots when the tide comes in and drop, or carefully climb, back down to the mud below to forage when the tide goes back out. Considering their appearance and the heavy shell they must carry around these crabs are surprisingly nimble climbers and can easily navigate branches as thin as a match or cross from one stem, or branch, to another. Related species are known as 'tree crabs' for this arboreal behaviour.
The other day I had a small scrap of what must have been very tasty fish food (a blended mix of shrimp, beef heart, boiled zucchini, and calcium powder) which I tossed into the tank. The mudskippers missed seeing it land, and a hermit crab hurried over and started to feed. Another hermit crab soon became aware of this as they watch each other's behaviour and regularly try to steal or share each other's food. This interloping crab stood up very tall on its legs, splayed out its eyestalks and antennules, and advanced on the first crab who backed away and gave up the food. The newcomer started to feed enthusiastically. The first crab must have reconsidered the size of the interloper, or else the food was just too good to abandon, so it too stood up tall and advanced on the feeding interloper. The interloper crab very deftly swept one of its legs under the other crab and tripped it up without stopping its feeding. The other crab recovered and stood tall again splaying out both its eye stalks and antennules and advanced again. The interloper did the crab equivalent of kicking at it a couple of times - to no avail. The interloper then used its two outside legs to shove the other crab over onto its back. All the while this was going on it was still frantically feeding with both claws. The other crab recovered again and advanced once more (and this was the

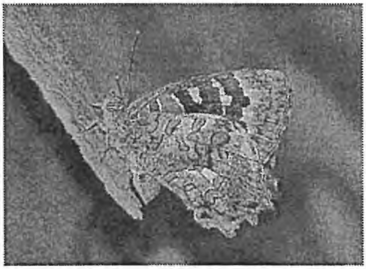
action that finished me) the interloper carefully raised its left back limb (the longest one) and taking careful aim it poked the other crab in the eyestalks! Not once either as the other crab needed about three of these (two in the eyestalks and one in the mouth) before it finally gave up and wandered off a short way and rested quietly.

Not long afterwards the interloper had its fill and left, and the original crab was able to return and reclaim the food, so there was a sort of justice – but it was so funny to watch. Watching them bumble about the tanks in pet shops you have no idea they are capable of such sophisticated behaviour or dexterity. It just shows what a difference the right sort of conditions of heat, humidity, and substrate can have on captive animal behaviour.

Martyn Robinson

NEW HOST PLANT RECORD

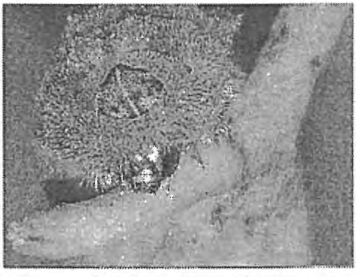
New host plant and attendant ants for the Satin Azure butterfly [*Ogyris amaryllis hewitsoni* (Waterhouse,1902)]



Adult female, *Ogyris amaryllis hewitsoni*

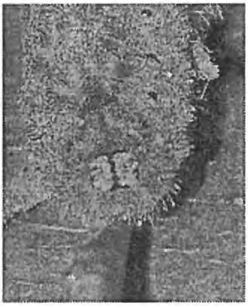
During March 2005, on a property 65km south west of Bundaberg in the Burnett River catchment, an iridescent blue lycaenid butterfly, quite obviously an *Ogyris* sp., was spotted flying around a clump of the mistletoe *Diplatia furcata* hosted by the weeping, riverine bottlebrush, *Callistemon viminalis.* With the only known species of *Ogyris* to feed on *D. furcata* being the Sapphire Azure (*Ogyris aenone)*, the excitement grew with the possibility of a new distribution area for this species.

O. aenone has a disjunct distribution occurring in both north and south Queensland. With the southern population on the western fringe of the Darling Downs and the southern part of the northern population ending about 40km north of Townsville, it seemed that a population about a third of the way up from the southern distribution was quite feasible. The other option was a new host plant for one of the other *Ogyris* species.



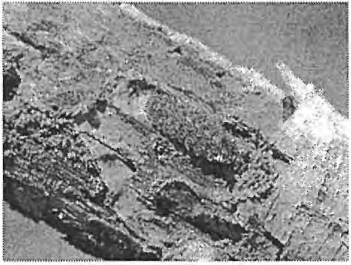
Larva, showing pale median line on prothoracic plate

Having had no luck with the net that day it was to be about seven months before we had the answers. On a return visit in October 2005, a larva was discovered under the bark of a dead *Acacia* sapling, which was leaning against a *Callistemon viminalis* hosting only *Diplatia furcata*. Michael Braby's book (Ref 1) was consulted and we found within the description of the larva of *Ogyris amaryllis*, quote, "prothoracic plate dark brown, with a pale median line; anal plate with a black I-shaped mark". A close study of our larva, with a 10X hand lens showed it conformed to these details. The larva was raised through to pupation on *Diplatia furcata* and emerged, as expected, as a "fully-fledged" (female) *Ogyris amaryllis hewitsoni.* This butterfly was previously only known to utilise *Amyema* species of mistletoes (but see separate note in this issue).



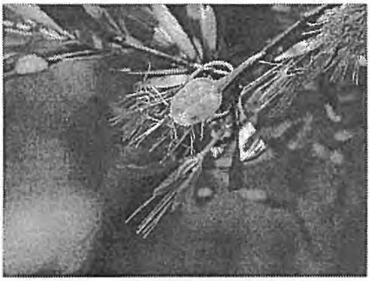
Larva, showing I-mark on anal plate

The same mistletoe was also found parasitising the riverine paperbark, *Melaleuca trichostachya.* This is a new host tree record for *Diplatia furcata.* The mistletoe is easily recognisable from the large leafy bracts, which subtend the flowers and fruit.



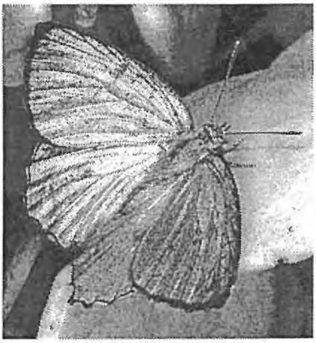
Bark removed to show resting larva

The butterfly's immature stages have previously been recorded in facultative association with several species of ants, in particular *Crematogaster* species (Ref 2). On this occasion we found two new ant associations, namely *Papyrius nitidus* (the "Coconut Ant") and *Ochetellus* species (ident. Chris Burwell, Queensland Museum). Both these ants were in attendance, concurrently, in small numbers. As well, *Iridomyrmex* sp. ants were also seen inhabiting the same host tree.



← *Diplatia furcata* in flower, showing the large leaf-like bracts

Adult male, *Ogyris amaryllis hewitsoni Photo by Ross Kendall* →



All photos by Peter Hendry except →

References

1: Braby, M. 2000: Butterflies of Australia their Identification, Biology and Distribution. CSIRO.

2 : Eastwood, R. and Fraser, A.M.: *Associations between lycaenid butterflies and ants in Australia.* Australian Journal of Ecology (1999) 24: 503-537

Peter Hendry* and *John Moss

Note on *Ogyris* butterfly hostplants and amendments to the "Hostplant Book" information.

The new mistletoe hostplant determination, in the preceding article, brings into question earlier anecdotal reports of *Ogyris amaryllis* larvae utilizing the mistletoe *Lysiana maritima* (referred to as *Lysiana subfalcata* before it was split off by mistletoe taxonomist Bryan Barlow).

Some work done by researcher Peter Atsatt prior to 1981 in Central Australia and Western Queensland showed that *Ogyris amaryllis meridionalis* larvae "all died within two days of actively feeding on *Lysiana* leaves". He used 4 species of *Lysiana* including *L. subfalcata* and *L. exocarpi.* (Ref.1)

However, Murdoch de Baar (pers. comm.) confirms that he has seen another related species, *Ogyris aenone*, variously known as the Cooktown or Sapphire Azure, feeding actively on *Lysiana exocarpi* subsp *tenuis* at Leyburn on the Southern Downs. This mistletoe invariably parasitises the Bulloak (*Allocasuarina luehmannii*) as does *Amyema linophylla* another confirmed hostplant for this butterfly.

Nevertheless, I have not personally seen *Ogyris amaryllis amaryllis* nor *O. amaryllis hewitsoni* using *Lysiana maritima.* The former uses *Amyema cambagei* on Swamp Oak (*Casuarina glauca*) and River Oak (*C. cunninghamiana*) in the Brisbane area and the latter uses *A. cambagei* on Swamp Oak and *Amyema mackayense* on Grey Mangrove (*Avicennia marina*) at Saltwater Creek near Maryborough (pers. obs. M. Barnett, J. Moss and R. Stoodley). Further north at Mon Repos near Bundaberg, Don Sands and I found them only on *Amyema mackayense* in the mangroves. They appeared to avoid the *A. cambagei* growing on the dune She-Oak *Casuarina equisetifolia* but we couldn't say for sure that they **didn't** use *A. cambagei* at that latitude.

Specimens of this butterfly found by John Kerr at Gayndah on the Burnett River and at Mt. Larcom Creek near Gladstone (well above the tidal zone) would probably have been utilizing *Diplatia furcata.* This is because John (pers.comm.) did not notice any Casuarina mistletoes but recalls that Callistemons were very common along the creek banks. I believe that *D. furcata* would have been parasitising those trees.

I now consider that there has been a misidentification of *D. furcata* for *L. maritima* which, when not in flower or fruit, can look alike, with similar sized, opposite placed leaves. However, their flowers and fruits are very distinctive and generally they are specific to their Callistemon and Casuarina host trees.

Consequently there needs to be an amendment to the information given in the second (revised) edition of "Butterfly Hostplants of southeast Queensland and northern New South Wales", such that (on page 33) the Satin Azure is deleted from the *Lysiana maritima* listing and (on page 32) it is added to the *Diplatia furcata* listing. Also in the reverse index (on page 46) *D. furcata* is substituted for *L. maritima* under Satin Azure.

In view of the work of Atsatt etc., a few people (including Michael Braby) had expressed doubts about *Ogyris* butterflies utilizing *Lysiana* mistletoes and fortuitously this new information would appear to invalidate those reports. This finding should not necessarily put into doubt the personal observations of Jack Macqueen (Ref.2) and Murdoch de Baar of *Ogyris aenone* feeding on the related mistletoe *L. exocarpi* subsp. *tenuis*. However, I do believe that due caution should always be taken when two different mistletoe species (e.g. *A. cambagei* with *L. maritima* and *A. linophylla* with *L. exocarpi*) are hosted by the same Casuarina (i.e. River/Swamp Oaks and Bulloak respectively).

I should also take this opportunity to point out that the listing in the hostplant book of *D. furcata* and *Dendrophthoe vitellina* mistletoes as hostplants for *Ogyris aenone* are North Queensland records only and to date have not been observed in the region covered by the book, as much as Peter and I would have welcomed it! (see preceding article).

References:

1. Atsatt, P.R. (1981). Ant dependent foodplant selection by the mistletoe butterfly *Ogyris amaryllis*. Oecologia 48:60-63
2. Macqueen, J. (1965). Notes on Australian Lycaenidae (Lepidoptera). J.ent.Soc.Qld. 4:56-57

John Moss

AUSTRALIAN NATIVE BEES #6

Final Chance to Comment on European Bumblebee Importation

The Australian Hydroponics and Greenhouse Association (AHGA) has taken another step in their bid to import European bumblebees to the Australian mainland for greenhouse tomato pollination. They are applying to add the exotic bumblebee, *Bombus terrestris*, to Australia's list of species 'suitable for live import'.

The Bumblebee Story So Far

European bumblebees slipped into Tasmania in 1992 and since then these feral bumblebees have spread throughout most of that island. However, presently there are no bumblebees on the Australian mainland.

If introduced to the mainland, feral bumblebees could spread widely through our bushland, farms and urban gardens, spreading invasive weeds, competing with nectar feeding insects and birds, and altering native plant pollination systems.

The report recently submitted by the AHGA to support their proposal is inaccurate and misleading, containing dozens of misinterpretations of published research. It should be rejected by the Department of the Environment and Heritage.

Furthermore, research at Adelaide University is now well on its way to producing a viable native bee alternative for the greenhouse tomato industry. Australian blue banded bees (*Amegilla*) can now be bred year round in large numbers, forage actively inside greenhouses and substantially improve tomato pollination.

How You Can Help

Now is the last opportunity for you to have your say in this important issue! Please send an email or letter right now as the closing date for public comment is 16 June 2006. Thank you for your support!

Please email your comments to: wsm@deh.gov.au
or write a letter to: Director, Science and Natural Resources
Department of the Environment and Heritage,
GPO Box 787, Canberra ACT 2601

More information can be found on the *Aussie Bee* website:

- Background information about the issues
- A detailed analysis of the AHGA report with evidence from leading researchers in the field
- A current update on the blue banded bee research
- Suggestions to help you write your email or letter

Please visit: www.aussiebee.com.au

Anne Dollin, Australian Native Bee Research Centre

REPORT

Beetles - A report on the presentation by Geoff Monteith to the Club on 28th July, 2005

SUMMARY OF A SLIDE SHOW ON BEETLES (continued from March 2006 Newsletter)

Stag Beetle, family Lucanidae. *Rhyssonotus laticeps*. A rare species which occurs from the Border Ranges north to Kroombit Tops. Breeds in dead eucalypt logs. – Drawing by Geoff Thompson, Queensland Museum.

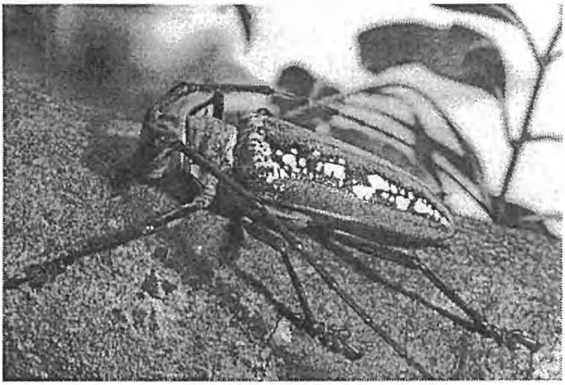
Stag beetles (Family LUCANIDAE) are highly recognizable scarabs because the males often have large jaws. Some are metallic in colour. One recently discovered species, *Sphaenognathus munchowae*, lives on the tableland above Carnarvon Gorge in Queensland. Its closest relatives are in Chile. The larva of this species live deeply embedded under very old eucalypt logs, and are covered with a layer of soil. These larvae live in dry areas and are particularly good at water conservation. They have a distinctive enlarged anal area which removes as much water as possible from their faecal pellets. The golden stags (*Lamprima spp)* are metallic green, gold or purple in colour and often occur right in

Brisbane suburbs, where they come to flowering pittosporum and similar plants.

Bess beetles (Family PASSALIDAE) are gregarious, sub-social scarabs which live in chambers inside rotten logs. Their food is the rotten wood and they raise broods of larvae which feed in the early stages on the part-digested wood in the droppings of their parents. The larvae have a special structure on their hind legs with which they make squeaks to communicate with the adults. All adult passalids have the same appearance....shiny black, parallel-sided beetles with deep parallel grooves in their wing covers. The largest local species is *Mastachilus questionis* which occurs at Lamington.

The remaining families to be considered here all belong to a major group known as the Phytophaga (literally "plant eaters") which primarily feed on plants. They all share a similar type of tarsal segmentation (their feet) where there are four large, wide segments plus a second last segment which is very small and almost invisible. Major families included here are the leaf beetles (Family CHRYSOMELIDAE), the weevils (Family CURCULIONIDAE) and the longicorns (Family CERAMBYCIDAE), all with many thousands of different species.

Longicorn beetles have very long antennae, often longer than the whole body of the animal. This is particularly so for the males. Their larvae feed on dead wood. The group includes hundreds of species which are often very host specific. The largest beetle in Australia, *Batocera wallacei,* is an enormous longicorn from Cape York which breeds in fig trees. A smaller species, *Batocera boisduvali,* occurs at Mt Glorious. The females of some longicorn beetles are known to ringbark branches of garden trees, then lay their eggs in bite marks in the section above the ringbarking. The larvae then grow in the stem above the ringbarking. This action cuts off the chemical defenses of the plant. A common large species in Brisbane is *Agrianome spinicollis,* a large khaki species which breeds in rot holes of poinciana trees. A good way to see longicorns is to examine the trunks of newly fallen trees where they will be found aggregating, mating and laying eggs into the dying timber.

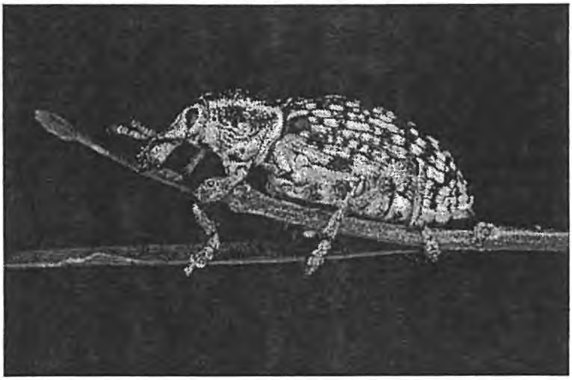


Giant Fig Longicorn , Family Cerambycidae, *Batocera wallacei*. Australia's largest beetle. Occurs in New Guinea and the northern part of Cape York Peninsula. Breeds in fig trees– Photo by Owen Kelly

Longicorn beetles are a diverse group which includes many mimics. Some mimic lycid beetles as mentioned earlier, others wasps, down to the types of movements that the wasps make, while still others mimic ants. There are also wingless desert longicorns. These have lost their hind wings and run around the ground, some mimicing wasps.

Weevils (Family CURCULIONIDAE) are beetles with "noses". The nose is more properly called a rostrum and consists of a cylindrical extension of the front of the head with the jaws placed at the end. The eyes are located above their rostrum while their antennae are attached to the side of the rostrum. On advanced species in this group, the antenna has an "elbow', that is it bends sharply at half length. The base of these antennae fit into grooves in the sides of the rostrum. Some weevils have the ability to fold their "noses" out of the way into a groove between their front legs when they aren't in use. On some weevils the rostrum can be longer than the rest of the beetle. Weevils use their rostrum as a boring instrument into hard plant tissues like wood and seeds and help the female lay her eggs inside. They hatch into legless grubs which bore along inside the chosen substrate. A few are pests of stored grains but most are harmless native species.

A well-known weevil is the Botany Bay Diamond Weevil (*Chrysolopus spectabilis).* It was collected on Cook's first voyage in 1770 and was named by Fabricius in 1774, making it the first beetle named from Australia. It ranges up to Cooktown NQ, and both adults and larvae feed on wattle trees. Australia's largest weevil, *Eurhamphus fasciculatus,* reaches 60mm in length and breeds only in Hoop Pines. Its shaggy surface camouflages it well on the rough bark on that tree.



Botany Bay Diamond Weevil, Family Curculionidae, *Chrysolopus spectabilis.* Occurs on wattles all along the east coast of Australia. – Photo by Owen Kelly

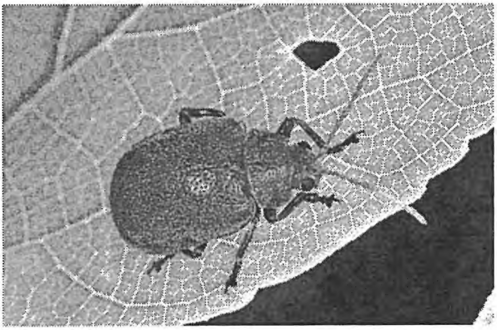
Most weevil larvae bore into timber, but one special Australian group, the genus *Gonipterus* and its relatives, have slug-like larvae which feed externally on the leaves of eucalypts, somewhat like caterpillars. They cover themselves with faeces as a disguise. Some of these species are being used for the control of Eucalypts that have become feral in other countries.

The Amycterinae are a group of large, wingless ground-weevils which have practically lost their noses, and have just a broad snout in front of the eyes. They are very diverse in the inland deserts and most seem to feed on grasses with their larvae living in the base of tussocks.

Some of the more primitive weevil families do not have elbowed antennae. The BELIDAE are one of these with many species feeding on wattles and conifers. Some have the orange and black colour which marks them as part of the lycid mimicry ring described earlier. Another extremely primitive group is the family NEMONYCHIDAE and almost all of these breed in the pollen sacs of the male cones of conifers, especially the ancient native Australian pines like kauris, hoops and bunyas.

Another family that lacks elbowed antennae is the BRENTIDAE. These are moderately to very elongate beetles often found on the outside of dead logs. Males of *Ithystenus hollandiae* have long thin legs that make a "cage" to imprison a female. This protects the female for a long time after they have mated and while she lays her eggs. Other males stick their noses in under a guarding male and try to flick it off so they can take possession. Another genus in this family, *Cordus*, live in ants' nests, particularly in inland Australia. Their relationship with the ants is unclear.

The Family CHRYSOMELIDAE is an enormous group with numerous colourful species which mostly feed as adults and larvae on the leaves of plants and rejoice in the common name of leaf beetles. The family is divided into about 6 subfamilies, of which the CHRYSOMELINAE is by far the largest in Australia. There is a massive diversity of these on eucalypts and acacias and it appears that the beetles and plants have evolved together, with many of the hundreds of species of the plants having its own leaf beetle. The biggest group of these is *Paropsis* and its relatives, which all have a distinctive circular, highly-convex shape. Many of them have exquisite colours, but unfortunately they often fade rapidly in dead specimens. The females usually lay batches of eggs, often arranged around a twig. These hatch to batches of larvae which feed in groups on leaves. When disturbed they defend themselves as a group by simultaneously regurgitating toxic fluid, which sometimes even contains cyanide. Some species are serious pests of young eucalypt plantations. The adults usually hibernate during winter, often under loose bark of the host tree, then emerge in spring to lay eggs and start a new generation. Other familiar genera in the same subfamily include the green and red *Lamprolina* on pittosporum and bursaria, the gleaming dimpled green



Chinese Elm Leaf Beetle, *Menippus cynicus*, Family Chrysomelidae, subfamily Galerucinae. Photo by Jeff Wright, Queensland Museum

Johannica on wonga vines, the yellow and blue spotted *Phyllocharis* on clerodendrum and the yellow-spotted *Chalcolampra* on vitex.

The more soft-bodied Subfamily GALERUCINAE includes the fig beetle, *Poneridia australis,* which feeds on native sandpaper figs but is even happier to devour the leaves of commercial figs. It lays batches of pale yellow eggs under the leaves and these hatch to families of hungry black larvae which line up along the edge of leaves as they feed. A native species that feeds naturally on the native elm, *Celtis paniculata*, is the dark reddish brown *Menippus cynicus.* It was formerly rare and only recorded once or twice south of Gympie. But in recent years it has arrived in Brisbane to find a wonderful, somewhat artificial, sub-tropical paradise, full of the pest tree Chinese Elm (*Celtis sinensis)*, and has started going to town on them. Let's hope it stays.

Other GALERUCINAE feed on plants in the Vitaceae, or native grapes. The attractive red and black *Oides dorsosignata* is one of these, preferring *Cayratia* vines. Many of the larvae of GALERUCINAE don't feed freely on leaves but are found in the soil on roots of plants, while the adults feed on leaves. This applies to the pest red-shouldered leaf beetle, *Monolepta australis,* which sometimes occurs in massive emergences of adults which eat everything in their path. Flea beetles, called this because of their ability to jump using an enlarged hind leg segment (femur), belong to this group also. Many of them feed on Solanaceae, leaving small circular feeding marks on the leaves.

The Subfamily HISPINAE includes interesting beetles with their antennae inserted very close together and their heads bent backwards beneath. There are two basic sorts. Tortoise beetles are circular and flattened , with the outside edge of their body extended so it covers their head and legs from attack by predators. A common one is *Aspidomorpha deusta* which feeds on leaves of the beach convolvulus, *Ipomea pes-caprae.* Its larvae are typical of the group and have a forked appendage on its tail which collects its shed skins and faecal pellets. It flexes these over its back as camouflage. Another very curious tortoise beetle is *Notosacantha dorsalis*. Its adults feed on leaves of *Acacia crassa* in the mid west of Queensland and resemble blotches on the leaf surface. Its larvae are leaf-miners which live inside the leaf. The other type of Hispinae are the "true hispines" which are usually flattened, elongate beetles which live in the axils of leaves of monocot plants. For example, the prickly little black *Hispellinus* lives on grasses while the smooth pale *Eurispa* lives on sedges like gahnia. Most unusual is *Aproida balyi* which is common around Brisbane on the twining wombat berry vine, *Eustrephus latifolius.* The adults resemble small green grasshoppers while the larvae look like caterpillars with a long black tail. When they pupate they hang down on the withered skin of the larva and mimic the flower buds of the plant. Two species of these true hispines have been brought to Australia to attack lantana and are well established around Brisbane. Both have larvae which burrow inside the lantana leaves.

The Subfamily CRYPTOCEPHALINAE includes small cylindrical beetles with both ends of the body with a "cut off" appearance. Their elytra are also slightly shorter than the length of the abdomen. The adults are mostly found on eucalyptus and acacia leaves. Their larvae live in small portable cases made from their dried faeces. They live on the ground and feed on dead leaves in the leaf litter. They also pupate inside this case.

The Subfamily CRIOCERINAE has only a few species and the most familiar is the shiny yellow-patterned orchid beetle, *Stethopachys formosa,* which feeds on the flowers and leaves of orchids. Related species of *Lilioceris* feed on the soft young leaves of barbed-wire vines, *Smilax australis*. Larvae of this subfamily feed in a group and cover themselves with their faeces for camouflage and protection. When they pupate they produce a shelter for the whole group made of a secretion which dries out to closely resemble polystyrene.

Geoff Monteith

EXCURSION REPORT

Queensland Museum Excursion 17th May, 2006

Dr Chris Burwell led the Club's group of nine participants in a 'behind the scenes' look at the work of the Queensland Museum. This took us through the back rooms where we concentrated on the insect areas at our request. All nine of us were engrossed for the full ninety minutes, and, other that the awful smell of mothballs, could have spent a deal more time. The back room areas may not be as glamorous or as orderly as the display areas but it was far more interesting and informative for a group like ours.

Extensive arrays of storage cabinets held all manner of insects and other invertebrates in purpose built glass topped drawers especially constructed to surround the specimens with a barrier of Naphthalene. This is needed to prevent a number of pests of Museum specimens, and helps keep the specimens for hundreds of years. Within each draw specimens are kept in smaller purpose constructed trays to allow for expansion to the collection of a specific group. Museum volunteers help build these units of various sizes.

Chris outlined the importance of Museum collections for taxonomic and research purposes. The Queensland Museum, unlike some other museums, is still as a working research centre particularly in the invertebrate area. Also, the Museum has the ability to do its own DNA testing. The collection Chris showed us is a working collection rather than display collection.

Various trapping and collection methods for insects were described and mounting methods for specimens were shown. Insects occur in many parts of a habitat and need to be collected in different ways, pitfall taps, light traps, were mentioned amongst others. With insects in particular, collection concentrates on the adult animals. Many of these are relatively easy to preserve through drying, and can be easily displayed through pinning. Also they can be kept for several centuries in the right conditions. The back rooms are air-conditioned and held at carefully controlled temperatures and humidity.

While much Museum collection work in general no longer requires many field trips particularly in the case of larger animals, invertebrates are still being collected. The field trip work is concentrated in Queensland with some recent trips to New Caledonia. Lots of species are not yet named. Perhaps a third of specimens held in the Queensland Museum's invertebrate collection are named.

With so few people working on invertebrate taxonomy, and with only a small proportion of the millions of species named, the work on any particular group falls to a small number, or in many cases, one person. These people often work on the particular group throughout the world. To assist these people in their work the Queensland Museum sends specimens to these specialists wherever they may be situated.

Chris went on to describe some of the types of specimens held in the collection. These include:

- Holotypes: These are the particular individual specimen that has been used to describe a species. The specific animal chosen, ie. caste, gender, needs to be useful in differentiating the species. Sometimes this needs to be the male, as its genitalia might be diagnostic. Sometimes it needs to be a specific caste, such as the workers. On rare occasions the holotype can be photos of a type specimen. This has recently been the case for a new species of monkey where only 18 were found in the wild.
- Neotypes: The holotypes for different species are held in collections throughout the world. Over time some holotypes have become lost. Once this is clearly the case, a neotype becomes the specimen that defines the characteristics for the species.
- Paratypes: These are specimens that have been taken with the holotype. These specimens are paratypes if it's clear that they are very closely related individuals, for example, if they are known to come from the same nest of social insects as the holotype.

Several specimen trays were on display. One of these was a tray of tiny parasitic wasps containing many holotype specimens, which were marked as such. This tray contained the specimens of the original work done on the group. Labels on the specimens give the genus and species, if described, the collector, date and place of collection.

Chris went on to mention the Brisbane City Council funded project conducted by the Museum, and had some of the trays of specimens collected available for viewing. Ten sites throughout Brisbane were selected for this pioneering study. The report "Status of Terrestrial Insects Review" was reported in the September, 2005 Club newsletter. One tidbit out of interest - 63 species of native Dung beetles are recorded, from various sources, as having been found in the Brisbane region. The survey added three new records.

We were given a tour of other 'behind the scenes' areas including rooms of compactus shelving full of specimens and a room where larger creatures (or soft bodied creatures) are preserved in alcohol. The smell of evaporating ethanol permeated this area and extensive fire prevention and protection methods were in place.

Geoff Thompson gave a short presentation where he outlined some of the insect illustration methods he has used over time. He also had some of his superb insect illustration work on display. Geoff has recently returned from a Fellowship at the Smithsonian Institute in the US, where he learned a new photographic technique that enables a new method of illustrating insects. This method takes digital images of specimens at various depths of field and compiles the sharp parts of these images into a sharp whole. This provides a starting point from which he can then produce a good illustration. Much work needs to be done even after a sharp image has been compiled, as the original specimen may be in less than perfect condition. The images are compiled in a program called Photoshop, and each image may comprise over a 100 layers if not more. He was able to demonstrate some of the manual adjustments that need to be made when using this technique.

Photo taken by John Klumpp

The excursion ended with Club members looking at various aspects of the collection. Some of us showed an interest in the native bee collection.

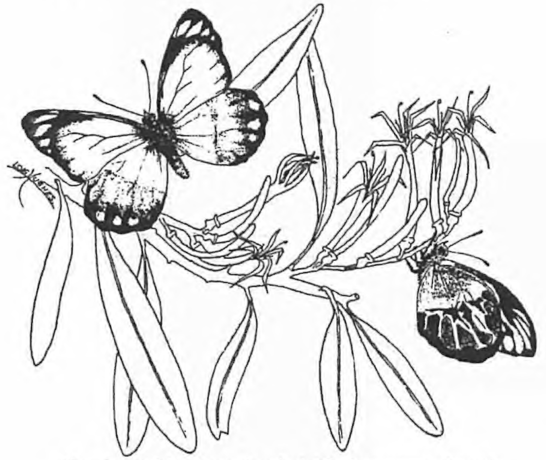
Dr Chris Burwell's Research Assistant, Susan Wright, also assisted in the presentation. Thanks goes to Chris, Geoff and Sue for their precious time in providing us with this privileged view of the Museum's workings.

Helen Schwencke with ***John Klumpp***

ITEMS OF INTEREST

Note on rearing the Scarlet Jezebel (*Delias argenthona argenthona*) (Fabricius, 1793)

On 8th March 2006 47 eggs of *D. agenthona argenthona* were collected from a specimen of the Variable Mistletoe (*Amyema congena*) which was parasitizing a mature Callistemon tree in Chapel Hill.



Scarlet or Northern Jezebel (*Delias argenthona*)

All the larvae successfully emerged and after eating the empty egg shells fed willingly on the mistletoe leaves. These first instar larvae were divided into three roughly equal groups with one group placed back on the mistletoe plant and sleeved while the other two were fed cut foliage indoors where they were safe from parasites and predators.

All went well until late in the third instar stage several larvae were seen to be significantly smaller than the majority of the population. This phenomenon continued throughout the remainder of the third and subsequent instars with more and more larvae becoming weaker and soporific. Deaths began to occur late in the fourth instar and this continued until only four larvae reached the pre-pupal stage. Of these four larvae three succumbed whilst pupating and only the fourth achieved success.

A fully formed but miniature male adult emerged having only attained a wingspan of 34 mm. The four larvae that survived the longest were from the indoor groups.

Graham R. Forbes

Ed. Note: This observation of Graham's confirms what has long been suspected: that *Amyema congener* whilst a common hostplant for the Black Jezebel (*Delias nigrina*) is not a natural hostplant for *D. argenthona.*

YOU ASKED

This caterpillar decimated some of the castor oil plants along Kedron Brook (in Everton Park) reducing the leaves to the midribs so they looked like old umbrellas. What is it and what does it turn into? ***Janet***

As soon as I received your message re the "looper" caterpillar I forwarded it to Don Herbison-Evans, a member who has a wonderful caterpillar site on the web. His reply is as follows –

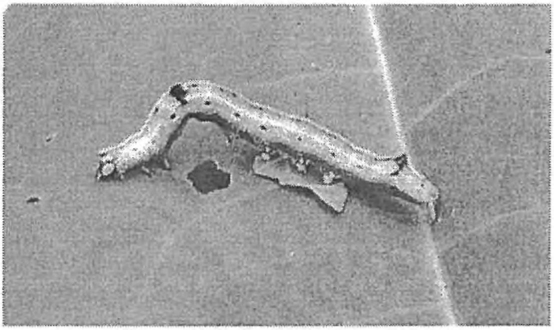
" Nice photos. Those are probably *Achaea janata*:
http://www.usyd.edu.au/macleay/larvae/cato/janata.html
or maybe *Achaea argilla*
http://www.usyd.edu.au/macleay/larvae/cato/argilla.html
I cannot tell one larva from the other, and you might like to rear them through to compare adults."

Later when discussing with John Moss articles for the next newsletter,I told him of your photos. He straight away said it would probably have been *Achaea janata* (Janet, he actually first thought it was *janeta* which I thought applicable!). He read out to me from Common's Moths of Aust. the following –

"*Achaea janata* has been taken from throughout most of continental Australia and elsewhere in Asia and the Pacific. The adults feed at fermenting fruit and have been accused occasionally of piercing sound fruit. The larvae are polyphagous (feed on many different species of plants) but are found most consistently on Castor Bean (*Ricinus communis*) and are an important pest of that plant when it is grown commercially."

Common 1990 in Moths of Australia, lists 30 other species or genera. In addition John Moss found it feeding on *Syzygium oleosum* at Laidley, Queensland in March 2004.

Ravaged Castor Bean (*Ricinus communis*)



Larva of *Achaea janata*

Daphne

SEED BANK

Over the past few months members of the management committee have received several requests for host plants or seeds. To address this need it has been decided to start a seed bank.

Using the Society for Growing Australian Plants (Qld Region) seed bank policy as a guide, it is envisaged that seed will be available to financial members of BOIC, but there will be a limit of 6 packets of seed per request and four requests per year. Each request should be accompanied by $1.00 in postage stamps and if requesting large seeds an increase in the number of stamps will be necessary.

The club secretary, Peter Hendry, has volunteered to make room in his beer fridge to store the seeds and handle all requests. Members with available seed are asked to help kick start the seed bank by either sending seed directly to the BOIC Seed Bank Curator, Peter Hendry 140 Henderson Road Sheldon 4157, or by handing them to members of the management committee.

It must be noted that we cannot guarantee the viability of the seed as some has a limited life and others difficult to germinate. It is not our intention to deal in declared weed species or restricted species.

Please help if you can, and hopefully our next newsletter will contain our first list of available seed and a full working policy.

Peter Hendry

BACK ISSUES

Back Issues of the Club Newsletter are available at a cost of $2 each plus postage (1-2 copies $1.10 - 3-6 copies $1.50).

OTHER GROUPS' ACTIVITIES

The Australian Museum's ***Up Close and Spineless*** **invertebrate photography competition** is on again. It is open to both amateur and professional photographers and has four entry categories: Primary School, Secondary School, Open and Professional. The competition closes on Monday 26th June 2006. For registration form contact Karen Player on 02 9320 6263. The *Up Close and Spineless* web site is http://www.amonline.net.au/up_close/competition.htm

A Brush with History: A Botanical Perspective – An exhibition by the Botanical Artists' Soc. of Qld. – Redland Museum, 60 Smith Street, Cleveland – June 3-July 28.

Spring Wildflower Spectacular: The Society for Growing Australian Plants (Qld. Region). Weekend 19, 20 August (See BOIC programme)

BUTTERFLY AND OTHER INVERTEBRATES CLUB PROGRAMME

Tues. June 13 – Two of our members Ross Kendall and John Moss are giving a talk at the Entomological Society of Queensland's monthly meeting at the Goddard Building, University of Queensland.
The topic is "interesting albinistic and melanistic aberrations of *Eurema* and *Catopsilia* butterfly species". This follows the exciting discovery of two very different butterflies in Ross' butterfly flight cage, one of which prompted the comment from Murdoch de Baar "Surely you're not flying an exotic species!?"
At the last meeting Rod Eastwood gave a very interesting talk on the role of attendant ants in the speciation of *Jalmenus* butterflies.
Members of BOIC are welcome to come to this Notes and Exhibits meeting which commences at 7pm sharp in lecture room 388 (level 3 top of stairs) of the Goddard Building. Best to meet between 6.30 and 7pm in the tea room, level 2. Ring John Moss 3245 2997 for further information.

Planning Meeting

What: Our planning meetings are informative and interesting. As well as planning our activities we share lots of information. All members are welcome as this activity is also a general meeting of members.
When: **Wednesday, 9th August, 6.30pm**
Where: to be advised on RSVP
Contact: Daphne 07 3396 6334 or email bowden@itconnect.net.au to RSVP or for more details

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Weekend 19, 20 August "Spring Wildflower Spectacular" of the Society for Growing Australian Plants (Qld. Region). As usual our club has been asked to participate in this regular happening, and, as before we will be having an informational/promotional stall. Venue is Auditorium, Mt. Coot-tha (Brisbane) Botanic Gardens, Mt. Coot-tha Road Toowong.
Any members willing to help with setting up, manning or dismantling would be welcome. Please ring Daphne for details 07 3396 6334 or email bowden@itconnect.net.au. Members looking for butterfly/moth hostplants may find something interesting amongst the plants for sale. There is also a good bookstall and SGAP price their stock below standard retail RRP.

The September excursion is a flight cage extravaganza! Those members who visited Ross Kendall's set up at Indooroopilly a few years ago will recall his butterfly "cathedral" – a huge steel-framed and meshed enclosure. This time we will visit the (butterfly) flight cages of three of our members in the Redlands (and all of very different construction)

Place: Meeting at John Moss', 30 Melaleuca Drive, Capalaba
Time/Date: **10am Saturday 16th September 2006**
Bring: Your lunch, camera etc.
Contact: Please register with John Moss 07 3245 2997 for further info and in case there are any last minute changes

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DISCLAIMER

The Newsletter seeks to be as scientifically accurate as possible but the views, opinions and observations expressed are those of the authors. The Newsletter is a platform for people to express their views and observations. These are not necessarily those of the BOIC. If inaccuracies have inadvertently occurred and are brought to our attention we will seek to correct them in future editions. The Editor reserves the right to refuse to print any matter which is unsuitable, inappropriate or objectionable and to make nomenclature changes as appropriate.

ACKNOWLEDGMENTS

Producing this newsletter is done with the efforts of:

- Those members who have sent in letters and articles
- Lois Hughes who provides illustrations including the cover
- Daphne Bowden who works on layout, production and distribution
- John Moss and Martyn Robinson, for scientific referencing and proof reading of various articles
- Helen Schwencke for conceiving the idea for the Newsletter

We would like to thank all these people for their contribution.

ARE YOU A MEMBER

Please check your mailing label for the date your membership is due for renewal. If your membership is due, please renew as soon as possible.

Membership fees are $15.00 for individuals and $20.00 for families, schools and organizations.

Would you please advise bowden@itconnect.net.au if you get or change an email address.

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Next event - **Tues. June 13** - a talk .at the Entomological Society of Queensland's monthly meeting at the Goddard Building, Univ. of Qld.on interesting variations in Pierid butterflies and the Student Prize award presentation.